



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/023,021

12/13/2001

Yukiyasu Fukami

NAK1-BQ58

2418

21611 7590 09/27/2007
SNELL & WILMER LLP (OC)
600 ANTON BOULEVARD
SUITE 1400
COSTA MESA, CA 92626

EXAMINER

PYZOCHA, MICHAEL J

ART UNIT

PAPER NUMBER

2137

MAIL DATE

DELIVERY MODE

09/27/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/023,021

Applicant(s)

FUKAMI ET AL.

Examiner

Michael Pyzocha

Art Unit

2137

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 August 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21, 26-29 and 31-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21, 26-29 and 31-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>8/7/07</u> . | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 2137

DETAILED ACTION

1. Claims 1-21, 26-29, and 31-35 are pending.
2. Amendment filed 08/16/2007 has been received and considered.

Information Disclosure Statement

3. The information disclosure statement (IDS) submitted on 08/07/2007 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 35 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
6. Claim 35 recites the phrase "a quality substantially similar", it is unclear to what extent the quality must be for

Art Unit: 2137

it to be substantially similar. Therefore, this phrase renders the claim indefinite.

Claim Rejections - 35 USC § 102

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 15-21, 24, 25, 28, 29, 33, and 34 are rejected under 35 U.S.C. 102(e) as being anticipated by Tsukahara et al. (US 6920222).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 1-8, 11-14, 26, 27, 31, 32, and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsukahara et al. (US 6920222) in view of Darshan et al. (US 7106749).

Art Unit: 2137

As per claims 1, 12, 26, 27, 31 and 32, Tsukahara et al. discloses reception means for receiving scrambled content and storage information (see figure 1), wherein (a) the scrambled content is a content which has been scrambled in units of content so that the content can be descrambled using descrambling keys that respectively correspond to each of the content (see column 9 lines 53-67), and (b) the storage information includes a list of the descrambling keys which includes all of the descrambling keys (see column 10 lines 6-22); storage means for storing the received scrambled content and the storages information; list extraction means for extracting the list of descrambling keys from the stored information (see column 10 lines 6-29); descramble processing means for descrambling the scrambled content (see column 10 lines 23-29); reproduction means for reproducing the descrambled content (see column 10 lines 61-64), wherein the normal reproduction mode is a mode which includes a play mode and in which all of the frames are descrambled and reproduced sequentially (see column 10 lines 23-28), the particular reproduction mode is a mode which only predetermined frames selectively extracted from less than all of the frames are descrambled and reproduced (see column 10 lines 29-64), and (a) in normal reproduction mode, said list of extraction means

Art Unit: 2137

extracts all descrambling keys from the list of descrambling keys, descrambles all of the frames and reproduces all of the frames (see column 10 lines 6-28), and (b) in the particular reproduction mode, selectively extracting descrambling keys corresponding to certain content, descrambling the certain frames and reproducing the frames (see column 10 lines 29-64).

Tsukahara et al. fails to disclose the particular reproduction mode reproduces only the predetermined frames such that the content is reproduced in a different speed.

However, Darshan et al. teaches such a fast forward type mode for descrambling and reproducing frames (see column 4 lines 1-18).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to implement Tsukahara et al.'s inhibit viewing mode as a fast forward mode.

Motivation to do so would have been to handle recorded broadcast content with conditional access (see column 3 lines 1-16).

The modified Tsukahara et al. and Darshan et al. system fails to explicitly disclose that each of the descrambling keys are used for a specific frame and that the auxiliary information includes information for identifying each frame.

Art Unit: 2137

However, Tehranchi teaches encrypting each frame with a specific key and including identifying information for identifying each frame (see column 5 lines 22-47 and figures 2 and 3).

At the time of the invention it would have been obvious to a person of ordinary skill in the art for the data portions portion of the modified Tsukahara et al. and Darshan et al. system to be frames and for each frame to be encrypted by a key and including identifying information identifying the frame.

Motivation to do so would have been to synchronize the keys with the frames (see Tehranchi column 5 lines 8-12).

As per claims 2-8, 11 and 13, the modified Tsukahara et al., Darshan et al. and Tehranchi system discloses the use of TS packets to send and receive the scrambled content (see Darshan et al. column 4 lines 43-53); and the use of ECMs for storing the list of decryption keys (see Tsukahara et al. column 6 lines 9-33).

As per claim 35, the modified Tsukahara et al., Darshan et al. and Tehranchi system discloses the particular reproduction mode reproduces the predetermined frames in a quality similar to the quality of the normal reproduction mode (see Tsukahara et al. column 4 lines 19-23 where the I-frames are only decoded and viewed and therefore is at the same quality as normal playback).

Art Unit: 2137

10. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over the modified Tsukahara et al., Darshan et al. and Tehranchi system as applied to claim 8 above, and further in view of Kahn (US 6853728).

As per claim 9, the modified Tsukahara et al., Darshan et al. and Tehranchi system fails to disclose the packet specifying information is one of Continuity Counter (CC), the number of TS packets, a cumulative amount of data, a relative reproduction time, and a scrambling key identifier, the scrambled content extraction means extracts, as the packet specifying information, one of the Continuity Counter (CC), the number of TS packets, the cumulative amount of data, the relative reproduction time, and the scrambling key identifier.

Kahn et al. in analogous art, however, discloses the packet specifying information is one of Continuity Counter (CC), the number of TS packets, a cumulative amount of data, a relative reproduction time, and a scrambling key identifier, (Col. 6, Lines 30-46, Kahn) the scrambled content extraction means extracts, as the packet specifying information, one of the Continuity Counter (CC), the number of TS packets, the cumulative amount of data, the relative reproduction time, and the scrambling key identifier, (Col. 6, lines 30-46)

Art Unit: 2137

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the Tsukahara et al., Darshan et al. and Tehranchi system to include the packet specifying information is one of Continuity Counter (CC), the number of TS packets, a cumulative amount of data, a relative reproduction time, and a scrambling key identifier; and the scrambled content extraction means extracts, as the packet specifying information, one of the Continuity Counter (CC), the number of TS packets, the cumulative amount of data, the relative reproduction time, and the scrambling key identifier. This modification would have been obvious because a person having ordinary skill in the art would have been motivated to do so, as suggested by, Kahn et al. (Col. 6, Lines 26-27) in order to resemble the packets to regenerate the program material.

11. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over the modified Tsukahara et al., Darshan et al. and Tehranchi system as applied to claim 1 above, and further in view of Ando (US 20030133699).

As per claim 10, the modified Tsukahara et al., Darshan et al. and Tehranchi system discloses a reception apparatus wherein the reception means receives (a) the predetermined unit of scrambled content (see Tsukahara figure 1) and the storage means

Art Unit: 2137

sequentially stores the received content, wherein the descramble processing means includes: scrambled content extraction means for, when performing particular reproduction processes, extracting the predetermined unit of scrambled content and I picture information from one of the TS packets stored in the storage means; descrambling key extraction means for extracting a descrambling key from the List of descrambling keys, only when the extracted predetermined unit of scrambled content consists of a portion of an I picture/an I picture; and descrambling means for descrambling the extracted predetermined unit of scrambled content using the extracted descrambling key (see Tsukahara as applied above and Darshan et al. column 4 lines 43-53 and column 9 lines 14-26).

The modified Tsukahara et al., Darshan et al. and Tehranchi system fails to disclose unscrambled I picture information, wherein the I picture information indicates whether the TS packet corresponding to the information consists of a portion of an I picture/an I picture or not; and I picture judgment means for judging whether the extracted predetermined unit of scrambled content consists of a portion of an I picture/an I picture or not, based on the extracted I picture information.

Ando et al. in analogous art, however, discloses a system to manage digital TV broadcast data that uses a signal or radio

Art Unit: 2137

wave that is segmented into a plurality of sets of TS packets to locate an I-picture at the head of each set. The I-picture is always located at the head, the I-picture address need not be described, and only the I-picture end address can be described. (Page 7, paragraphs 157 and 159; Figure 11) Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the Tsukahara et al., Darshan et al. and Tehranchi system to include unscrambled I picture information, wherein the I picture information indicates whether the TS packet corresponding to the information consists of a portion of an I picture/an I picture or not; and I picture judgment means for judging whether the extracted predetermined unit of scrambled content consists of a portion of an I picture/an I picture or not, based on the extracted I picture information. This modification would have been obvious because a person having ordinary skill in the art would have been motivated to do so, as suggested by, Ando et al. (Page 1, paragraph 21) in order to provide a system that can efficiently record a transport packet in a streamer which uses media capable of random access.

12. Claims 15-21, 28, 29, 33, and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsukahara et al. (US 6920222) in view of Tehranchi (US 7242772).

Art Unit: 2137

As per claims 15, 17, 28, 29, 33, and 34 Tsukahara et al. discloses acquisition means for acquiring content to be scrambled and a plurality of descrambling keys (see column 6 lines 9-17); scramble processing means that selects one of the descrambling keys for each portion of the content, and scrambles the each portion so that the portion can be descrambled by using the descrambling key selected for the portion (see column 6 lines 17-23); attaching means for attaching auxiliary information, which is used to generate a list of descrambling keys, wherein the auxiliary information includes each of the descrambling keys selected for the portion (see column 6 lines 9-33); broadcast means for broadcasting the scrambled content including the plurality of scrambled frames to which the auxiliary information has been attached (see column 6 lines 34-47).

Tsukahara et al. fails to explicitly disclose that each of the descrambling keys are used for a specific frame and that the auxiliary information includes information for identifying each frame.

However, Tehranchi teaches encrypting each frame with a specific key and including identifying information for identifying each frame (see column 5 lines 22-47 and figures 2 and 3).

Art Unit: 2137

At the time of the invention it would have been obvious to a person of ordinary skill in the art for the data portions portion of Tsukahara et al. to be frames and for each frame to be encrypted by a key and including identifying information identifying the frame.

Motivation to do so would have been to synchronize the keys with the frames (see Tehranchi column 5 lines 8-12).

As per claims 16 and 18-21, the modified Tsukahara et al. and Tehranchi system discloses embedding the list of descrambling keys in one or a plurality of pieces of predetermined information and broadcasting this information as an ECM (see Tsukahara et al. column 6 lines 9-33).

Response to Arguments

13. Applicant's arguments filed 08/16/2007 have been fully considered but they are not persuasive. Applicant argues that the combined references are not related to the same problem to be solved and there is no motivation to combine the references.

With respect to Applicant's argument that the combined references are not related to the same problem to be solved it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was

Art Unit: 2137

concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, all of the references are related to the protection transmission and playback of video data, which is the same field of endeavor as applicant's field of endeavor. Therefore, the prior art qualifies for a proper rejection under 35 USC 103(a).

With respect to Applicant's argument that there is no motivation to combine the references because the examiner has use impermissible hindsight, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). In the above rejections motivation is provided to each combination. Therefore the rejections under 35 USC 103(a) are proper.

Applicant also argues that Tsukahara uses image deterioration in the referenced methods of playback. However, as described in column 4 lines 19-23, Tsukahara explicitly discloses the decoding of only I-frames in the partial viewing

Art Unit: 2137

method. Therefore, these frames are clearly not deteriorated.

Applicant's remaining arguments with respect to claims 1-21, 26-29, and 31-35 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Pyzocha whose telephone number is (571) 272-3875. The examiner can normally be reached on 7:00am - 4:30pm first Fridays of the bi-week off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on (571) 272-3865. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2137

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MJP


EMMANUEL L. MOISE
SUPERVISORY PATENT EXAMINER